

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>X-11594</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 b. low.	
International application No. <b>PCT/US 00/ 01342</b>	International filing date (day/month/year) <b>19/01/2000</b>	(Earliest) Priority Date (day/month/year) <b>27/01/1999</b>
Applicant  <b>ELI LILLY AND COMPANY et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

### 1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing :



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of Invention is lacking (see Box II).

### 4. With regard to the title,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

**AMINOALKYLBENZOFURANS AS SEROTONIN (5-HT(2C)) AGONISTS**

### 5. With regard to the abstract,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

### 6. The figure of the drawing to be published with the abstract is Figure No.



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.



None of the figures.

## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 00/01342

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D307/81 C07D307/82 C07D307/84 C07D307/85 C07F7/10  
C07D407/12 A61K31/34 A61P3/04

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D C07F A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97 43272 A (GLAXO GROUP LTD.) 20 November 1997 (1997-11-20) * Compounds of formula II; Intermediate 16 * page 9; claims 1-18 ---	1-6
X	R. ROYER ET AL.: "Recherches sur le benzofuranne. L. - Étude de voies d'accès aux furoisoquinoléines" BULL. SOC. CHIM. FR., no. 11, 1972, pages 4201-4208, XP000088692 table VI --- -/-	1-6



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

18 May 2000

Date of mailing of the international search report

29/05/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Herz, C

## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 00/01342

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	H. ISHII ET AL.: "Total Synthesis of Lemaireocereine" CHEM. PHARM. BULL., vol. 40, no. 8, 1992, pages 1993-1996, XP000887200 page 1994 -----	1-6
X	WO 94 29290 A (PFIZER INC.) 22 December 1994 (1994-12-22) * Compounds of formula II *	1-6
A	WO 97 08167 A (SMITHKLINE BEECHAM P.L.C.) 6 March 1997 (1997-03-06) claims 1-10 -----	1-6

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 00/01342

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9743272 A	20-11-1997	AU 2953197 A BR 9708949 A CN 1228775 A EP 0901483 A US 5981572 A ZA 9704123 A	05-12-1997 03-08-1999 15-09-1999 17-03-1999 09-11-1999 13-11-1998
WO 9429290 A	22-12-1994	AT 154935 T AU 675536 B AU 6687094 A BR 9406823 A CA 2164009 A CN 1129443 A CZ 9503277 A DE 69404039 D DE 69404039 T DK 703911 T EP 0703911 A ES 2104383 T FI 942791 A GR 3024134 T HU 70844 A JP 8506348 T NO 955047 A NZ 265692 A PL 312005 A US 5767133 A ZA 9404139 A	15-07-1997 06-02-1997 03-01-1995 26-03-1996 22-12-1994 21-08-1996 14-08-1996 07-08-1997 16-10-1997 06-10-1997 03-04-1996 01-10-1997 15-12-1994 31-10-1997 28-11-1995 09-07-1996 13-12-1995 24-02-1997 01-04-1996 16-06-1998 13-12-1995
WO 9708167 A	06-03-1997	NONE	

# PATENT COOPERATION TREATY

**PCT**

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents  
United States Patent and Trademark  
Office  
Box PCT  
Washington, D.C.20231  
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

<b>Date of mailing</b> (day/month/year) 11 September 2000 (11.09.00)	
<b>International application No.</b> PCT/US00/01342	<b>Applicant's or agent's file reference</b> X-11594
<b>International filing date</b> (day/month/year) 19 January 2000 (19.01.00)	<b>Priority date</b> (day/month/year) 27 January 1999 (27.01.99)
<b>Applicant</b> BRINER, Karin et al	

1. The designated Office is hereby notified of its election made:

☒

in the demand filed with the International Preliminary Examining Authority on:

31 July 2000 (31.07.00)

☐

in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

☐

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<p>The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No.: (41-22) 740.14.35</p>	<p>Authorized officer</p> <p>Olivia TEFY</p> <p>Telephone No.: (41-22) 338.83.38</p>
--	--

# PATENT COOPERATION TREATY

**RECEIVED**

MAY 31 2001

ELI LILLY & COMPANY  
PATENT DIVISION

PCT

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

to:

*TITUS, R. R.C. TUCKER*  
ELI LILLY AND COMPANY  
Lilly Corporate Center  
Indianapolis, Indiana 46285  
ETATS-UNIS D'AMERIQUE

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT  
(PCT Rule 71.1)

Date of mailing (day/month/year)	25.05.2001
-------------------------------------	------------

Applicant's or agent's file reference X-11594	<b>IMPORTANT NOTIFICATION</b>
--	-------------------------------

International application No. PCT/US00/01342	International filing date (day/month/year) 19/01/2000	Priority date (day/month/year) 27/01/1999
---	--	--

Applicant ELI LILLY AND COMPANY et al.
---

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

**4. REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/	Authorized officer
---------------------------------------	--------------------



European Patent Office  
D-80298 Munich  
Tel. +49 89 2399 - 0 Tx: 523656 epmu d  
Fax: +49 89 2399 - 4465

Hebert, W

Tel. +49 89 2399-2152





# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>X-11594</b>	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. <b>PCT/US00/01342</b>	International filing date (day/month/year) <b>19/01/2000</b>	Priority date (day/month/year) <b>27/01/1999</b>
International Patent Classification (IPC) or national classification and IPC <b>C07D307/81</b>		
Applicant <b>ELI LILLY AND COMPANY et al.</b>		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li>I <input checked="" type="checkbox"/> Basis of the report</li> <li>II <input type="checkbox"/> Priority</li> <li>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li>IV <input type="checkbox"/> Lack of unity of invention</li> <li>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI <input type="checkbox"/> Certain documents cited</li> <li>VII <input type="checkbox"/> Certain defects in the international application</li> <li>VIII <input type="checkbox"/> Certain observations on the international application</li> </ul>		
Date of submission of the demand  <b>31/07/2000</b>	Date of completion of this report  <b>25.05.2001</b>	
Name and mailing address of the international preliminary examining authority:   <b>European Patent Office</b> <b>D-80298 Munich</b> <b>Tel. +49 89 2399 - 0 Tx: 523656 epmu d</b> <b>Fax: +49 89 2399 - 4465</b>	Authorized officer  <b>Herz, C</b>  Telephone No. +49 89 2399 8275 <div style="text-align: right;">  </div>	

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US00/01342

**4. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, pages:**

1-122 as originally filed

**Claims, No.:**

1-6 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US00/01342

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes: Claims 3-6
	No: Claims 1-2
Inventive step (IS)	Yes: Claims 3-6
	No: Claims 1-2
Industrial applicability (IA)	Yes: Claims 1-6
	No: Claims

**2. Citations and explanations  
see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

---

International application No. PCT/US00/01342

1. The group of compounds claimed in the present application is anticipated by the compounds disclosed in the documents classified "X" in the International Search Report.

If in view of the vast amount of novelty-destroying material the Applicant is able to define any new subject-matter within the meaning of Art. 33 (2) PCT he is also requested to indicate in which respect the claimed compounds are inventive since the 5-HT<sub>2c</sub> receptor activity of the same or similar compounds is already known from the state of the art indicated above.

As being generally deficient under Art. 33 (1) PCT a detailed examination has not been possible.

2. Claims 3 to 6 are directed to a therapeutical method performed on humans. Under the terms of Rule 67.1 (iv) PCT, the International Preliminary Examination Authority is not required to carry out an examination on such claims.